

Claims:

1. A method of inspecting a workpiece, comprising the acts of: providing the workpiece; projecting an array of charged particle beams towards the workpiece; passing each of the beams through one of a plurality of pole pieces, there being one pole piece associated with each beam, and through a single lens coil surrounding the plurality of pole pieces; detecting resulting secondary or backscattered particles from the workpiece; and determining a presence or absence of defects in the workpiece from the detected particles.
2. The method of claim 1, wherein each of the charged particle beams is directed onto a different region of the workpiece.
3. The method of claim 1, further comprising the act of translating the workpiece relative to an axis of the array of charged particle beams.
4. The method of claim 1, further comprising the acts of: determining if one of the charged particle beams has failed; and translating the workpiece relative to the array of charged particle beams, thereby to direct one of the remaining beams onto that portion of the workpiece onto which the failed beam was intended to be incident.
5. The method of claim 1, further comprising the acts of: focusing individually each of the charged particle beams onto the workpiece; and providing a plurality of additional focusing fields, one associated with each of the beams.
6. The method of claim 5, wherein the additional focussing fields are located at a perimeter of the array of charged particle beams.